

**Draft Summary of the Environmental Work Group Meeting
Oroville Facilities Relicensing (FERC Project No. 2100)
July 30, 2003**

The Department of Water Resources (DWR) hosted a meeting for the Environmental Work Group (EWG) on July 30, 2003 in Oroville.

A summary of the discussion, decisions made, and action items is provided below. This summary is not intended to be a transcript, analysis of the meeting, or to indicate agreement or disagreement with any of the items summarized, except where expressly stated. The intent is to present a summary for interested parties who could not attend the meeting. The following are attachments to this summary:

Attachment 1	Meeting Agenda
Attachment 2	Meeting Attendees
Attachment 3	Field Data Collection Protocol for the Ripped Banks G.I.S., Sacramento River Bank Protection Project
Attachment 4	Draft Collaborative Calendar
Attachment 5	Fisheries Task Force PM&E Review and Recommendations
Attachment 6	Resource Area Matrix
Attachment 7	Draft Narrative Reports: EWG –15A, 17, 51, 19A, 22, 89, 91, 92, and 94
Attachment 8	Presentation of Draft Narrative Reports EW-17/51, 19A, 22, 89, 94, and 91/92
Attachment 9	Presentation on SP-F16 Draft Phase II Report
Attachment 10	SP-F3.1 Task 2A, 3A Report Fish Species Composition: Lake Oroville, Thermalito Diversion Pool, Thermalito Forebay
Attachment 11	SP-F10, Task 2B Report 2003 Lower Feather River Steelhead (<i>Oncorhynchus mykiss</i>) Redd Survey
Attachment 12	SP-F10, Task 3B Interim Report Steelhead Rearing Temperatures
Attachment 13	Fish and Wildlife Service's Comments July 30, 2003

I. Introduction

Attendees were welcomed to the EWG meeting. Attendees introduced themselves and their affiliations. The desired outcomes of the meeting were discussed as listed on the meeting agenda. The meeting agenda and list of meeting attendees are appended to this summary as Attachments 1 and 2, respectively.

II. Action Items – June 25, 2003 Environmental Work Group Meeting

A summary of the June 25, 2003 EWG meeting is posted on the relicensing web site. The Facilitator reviewed the status of action items from that meeting as follows:

Action Item #E94:	Consider the FWS recommendation to hold a Functional Analysis Workshop and discuss the subject with DWR management.
Status:	Terry Mills DWR Environmental Resource Area Manager (RAM) noted that DWR needs to complete the modeling efforts before considering the recommendation and Curtis Creel added that the benchmark studies are in progress but it is too early to have answers. The EWG agreed to revisit the issue in the fall after some modeling scenario runs will be completed.
Action Item #E95:	Confirm cross-resource task force process.
Status:	Terry Mills explained the process developed by the RAMs related to cross-resource actions and noted the RAMs responsibility to provide information to each other on

specific proposed resource actions. He added the goal is to allow the work groups to be more efficient and not make the information exchange cumbersome or formal. RAMs may opt to bring some issues back to the work groups for discussion. Ken Kules with Metropolitan Water District endorsed the process suggesting that many of the cross resource issues are policy decisions and not technical questions that could be resolved at the work group level.

Action Item #E96: Send functional matrix to Eric Theiss.
Status: Completed.

Action Item #E97: Further develop the PM&E category definitions.
Status: Terry Mills described Category 1 as indicating that we can go forward and develop the Level 1 report while Category 2 indicates the proposed resource action is on hold while more data is acquired. Eric Theiss asked that the definitions be modified and further defined and the EWG agreed that refinement to the definitions could be discussed at the task force level and any suggested revisions be brought to the EWG.

Action Item #E98: E-mail maps included in GIS Fish Habitat Components document.
Status: Completed.

Action Item #E99: Make available the FWS' GIS rip-rap database for the Feather River reach from Sunset Pumps to Verona that includes bank slope, bank type, type of rip-rap, and aquatic near-shore depth, cover, and woody debris.
Status: Rich DeHaven representing US Fish and Wildlife Service (FWS) explained the background leading to the development by the Army Corps of Engineers (Corps) of the riprap database for the Sacramento River. He described FWS involvement with data collection for the Feather River as part of the Corps project and distributed the 'Field Data Collection Protocol For the Riprapped Banks G.I.S., Sacramento River Bank Protection Project' (Attachment 3). The EWG discussed access to the database and Rich noted that DWR's Flood Management group was involved and should have access.

Action Item #E100: Prepare and distribute Level 1 reports for prioritized resource actions.
Status: Ted Alvarez with DWR distributed Level 1 reports for discussion at the EWG meeting (see discussion below).

Action Item #E101: Extend collaborative meeting calendar and distribute to collaborative.
Status: The Facilitator distributed a draft calendar extending meeting dates to December 2004. (Attachment 4)

Carry over

Action Item #E92: Contact Butte Basin Groundwater Association to clarify their issues related to conjunctive use of groundwater during drought conditions.
Status: Jerry Boles with DWR contacted Butte Basin Groundwater Association and confirmed they have no outstanding groundwater issues at this time.

III. PM&E Discussion

Task Force Summary - Fisheries

Terry Mills noted that the Fisheries Task Force continues to flesh out the technical details associated with each PM&E and the EWG will continue to receive the Task Force recommendations for review as the resource actions are developed over the next several months. He distributed a table containing the PM&E review and recommendations from the Fisheries Task Force (Attachment 5) and asked the EWG to review and provide comments on any information included back to the Task Force. Mike Manwaring with MWH added that some of the original PM&Es were merged with the intent to capture similar or redundant ideas into one PM&E. Merged PM&Es are noted on the table.

Eric Theiss representing NOAA Fisheries questioned the Category 2 recommendation for EWG-97, NOAA Fisheries' fish passage action. Terry said the action is awaiting information from Study Plan (SP) F15 and confirmed DWR's understanding of their obligation to study fish passage to the next upstream barrier and not beyond additional dams upstream of Oroville. Eric stated that EWG 97 addresses the entire watershed and DWR should study the proposal as submitted because under FERC it is DWR's responsibility to get the fish back where they were prior to dam construction. Terry Mills agreed that Oroville Dam is a barrier to upstream passage but noted the real problem is safe downstream passage of juveniles through the series of dams along the system under control by various entities. Wayne Dyok with MWH added that recent guidance from FERC on one project upstream of Oroville is that they will not require PG&E to study upstream passage for the Upper North Fork Feather Project #2105. Eric stated that it is the opinion of NOAA Fisheries that all upstream barriers would be passable except possibly into Lake Almanor.

NOAA believes that the lack of fish passage upstream beyond the first barrier is an indirect impact of the Oroville facilities and the scope for SP-F15 does not extend into the watershed to cover indirect impact analysis. Eric stated that NOAA authorities clearly direct FERC to study impacts on a watershed level. He added that NOAA expects a complete feasibility study for the watershed and was surprised DWR did not begin analysis with receipt of EWG-97. Terry responded that data up to the next barrier would be delivered on schedule but DWR was not willing to take responsibility for a watershed level feasibility study as part of their relicensing.

Eric stated that due to the hatchery issues and Endangered Species Act (ESA) issues, NOAA fisheries believes that its goals cannot be satisfied by any other PM&E and therefore they could be forced to release a Jeopardy Opinion. Curtis Creel questioned the implications of a Jeopardy Opinion because a No Jeopardy Opinion already exists for those species addressed by CALFED. Eric reiterated the view that DWR has an obligation to consider fish passage all the way above the upstream dams because they impact the ability of the fish to reach their historic spawning grounds and that fish passage is a reasonable foreseeable future action that needs evaluation. Terry Mills noted that upper management at both DWR and NOAA Fisheries will be interested in the information generated from SP-F15 and the Fisheries Task Force will address the Category 2 issue for EWG-97.

Task Force Summary - Terrestrial

Terry explained that the Terrestrial Task Force had not develop a matrix as involved as the Fisheries Task Force did but are using the tracking matrix to aid in discussions. The Task Force expects to meet once more and then be prepared to provide recommendations to the EWG.

Updated Tracking Table

Mike Manwaring distributed an updated Resource Area Matrix (Attachment 6) and reviewed revisions (shown in color) made since the last EWG meeting. He explained that some recently introduced resource actions are similar to older ones and will likely be merged when the task force considers them for further development.

Priority Resource Actions – Narrative Reports

Draft Narrative Reports were distributed for EWG –15A, 17, 51, 19A, 22, 89, 91, 92, and 94 (Attachment 7). The Level 1 report is designed to provide information directly to the environmental documentation and includes information on specific design considerations.

Richard Harris with the consulting team discussed the narrative reports for proposed resource actions EW-17/51, 19A, 22, 89, 94, and 91/92. His presentation is detailed in Attachment 8 to this summary. Comments specific to individual narrative reports are provided below:

EWG17/51: The EWG discussed the Category 4 recommendation for EWG17/51 and concluded that the Terrestrial Task Force should further discuss these two resource actions and revise the narrative report as needed.

EWG 19A: Ken Kules expressed concern that no representative of the Corps was present for the discussion of channel modification and flow regimes.

EWG 22: Richard Harris pointed out that there is considerable flood plain available for habitat restoration currently within the levees so setbacks would not be required to achieve the goals of this resource action. Eric Theiss suggested that one location for enhancement of interest to the Yuba/Feather Workgroup is near Star Bend.

EWG 89: Richard Harris suggested that this resource action alone would not likely accomplish its goal because widening the river would also lessen its power to move gravels. He suggested that levee setbacks in some areas may provide benefits but the action needs to be coupled with others.

EWG 94: EWG discussed the potential benefits of increased water to the Oroville Wildlife Area (OWA) ponds including recreation, fishing, hunting and riparian vegetation restoration and the constraints including mosquito abatement, stranding and predation issues.

EWG 91/92: Koll Buer with DWR confirmed that flows ranging from 30,000 to 50,000 cfs would be needed to move gravels as described in these resource actions. Ken Kules calculated that flow over 3 days as roughly 180,000 acre-feet of water. Eric Theiss suggested we wait for floods to insert the gravels and asked when the geomorphic data would be available. DWR expects studies G1 and G2 to provide some of this information in October.

The EWG agreed to set the following technical task force meetings:

August 7	Terrestrial Task Force	9am – noon
Tentative location: OFD		
August 20	Fisheries Task Force	9am – 4pm
Tentative location: SWRI in Sacramento		
August 22	Fisheries Task Force	9am – 4pm
Tentative location: SWRI in Sacramento		

IV. Study Deliverables and Implementation Updates

Updates

SP-F16

Tom Payne with the consulting team discussed the Draft Phase II Report on SP-F16. His presentation is included as Attachment 9 of this summary. Tom explained that Phase II included adding transects, collecting hydraulic data on the new transects, merging and calibrating the data, reviewing the habitat criteria curves and finalizing the analysis to compute the habitat index vs. discharge relationships. He added that he described the results in terms of a Relative Suitability Index (RSI) rather than the weighted usable area (WUA). He reviewed the results included in his presentation and noted that within the upper reach of the river, the peak flow for Chinook salmon spawning in terms of RSI is in the 600-900 cfs range; below 600 cfs RSI decreases probably due to depth while above 900 cfs RSI decreases likely due to velocity changes. In the lower reach, 1300-1600 cfs results in the highest RSI for Chinook spawning as more water is needed to get the same amount of suitable spawning area because it is a bigger river in the lower reach.

Cover requirements differ for all life stages and Tom suggested that DWR data showing fish use in areas of no cover is probably due to the fact that there are large parts of the river without cover and the small fish don't have the ability to go elsewhere.

Terry Mills noted that optimal flows shown by the model aren't that different from the current flow regime so temperature modeling may drive any potential changes to that flow regime. The EWG discussed potential scenarios to model a range of flows down the low-flow channel and potential habitat benefits from gravel restoration.

Draft / Interim Reports

SP-F3.1, Tasks 2A and 3A

Eric See with DWR described the Fish Species Composition report (Attachment 10) distributed in advance of the EWG meeting. The report will be used in the evaluation of project effects on fish species, the resident fisheries' effect on upstream tributary fish and downstream special status fish, and in the development of a recreational fishery management plan. Fish species and relative abundance are included.

SP-F10, Task 2B

Brad reported on the 2003 Lower Feather River Steelhead Redd Survey (Attachment 11) distributed in advance of the EWG meeting. He noted that one half of all redds were observed in the upper mile of the river and the majority of these were found in Hatchery Ditch. Jason Kindhopp with DWR indicated that Hatchery Ditch is colder and more productive with a different invertebrate community.

SP-F10, Task 3B

Dave Olsen with the consulting team reported on the Steelhead Rearing Temperatures Report (Attachment 12) distributed in advance of the EWG meeting. The objective of the literature review and evaluation is to identify temperature ranges that are suitable for steelhead fry and juvenile rearing. The EWG discussed steelhead spawning and the report conclusion that the Low Flow Channel of the Feather River provides suitable water temperatures for steelhead fry and juvenile rearing during all months of the year. The consulting team will provide a copy of a study by Sonoma County Water Agency that includes steelhead-rearing temperatures to Eric Theiss.

VI. Next Steps

Rich DeHaven with FWS provided a handout titled 'Fish and Wildlife Service's Comments, July 30, 2003' (Attachment 13) and suggested that the EWG begin discussions about listed species with regard to PM&Es. He noted that FWS will assume Giant Garter Snake presence in the Project area and the EWG should begin considering how PM&Es could benefit this and other listed species. He suggested that the California Natural Diversity Database (CNDDDB) be reviewed for sightings. The FWS recommends development of a programmatic approach to the Biological Opinion(s) that they will need to issue where one programmatic BO could cover groups of similar PM&ES. Individual projects would then be appended to the programmatic BO as they are designed. Rich also noted that the FWS is experiencing workforce turnover and is trying to minimize the impact to the relicensing effort.

The Facilitator reminded the participants that the Modeling Workshop is scheduled for August 12 in Chico and will include results from some of the CALSIM II benchmark studies and other scenario runs designed to identify operational sensitivities. The modeling team will be on hand to answer questions from the collaborative.

The participants agreed that the next few EWG meetings would have essentially the same agenda as today as the EWG works through the information generated by the technical task forces. The next Environmental Work Group meeting is:

Date: August 27, 2003
Time: 9:00 a.m. – 4:00 p.m.
Location: Oroville Field Division

Action Items

The following action items identified by the Environmental Work Group includes a description of the action, the participant responsible for the action, and due date.

Action Item #E102: Provide a copy of Sonoma County Water Agency study that includes steelhead-rearing temperatures to Eric Theiss.

Responsible: DWR/Consulting Team

Due Date: August 27, 2003

Action Item #E103: Continue development of matrix and draft narrative reports.

Responsible: DWR/Consulting Team/Task Forces

Due Date: August 2003